

TRIFLUOR
Material for deep fluorination of enamel and dentin

Indications:

- prevention and treatment of all types of dental caries;
- treatment of early caries (when only enamel is damaged and preparation of the tooth is not indicated);
- hypersensitivity of the enamel;
- prevention of dental caries when using orthodontic appliances;
- treatment of non-carious lesions of the enamel (erosion, wedge-shaped defects);
- treating the sensitive areas after teeth whitening;
- sealing of fissures (without preparation of the enamels);
- treatment of periodontitis;
- hypersensitivity in the cervical area of the tooth;
- sealing of enamel after removal of dental plaque and professional teeth hygiene.

Composition and properties

Liquid:

Fluoride silicate magnesium and fluoride copper magnesium complexes ($MgSiF_6$ and $CuSiF_6$).

Suspension:

Methylcellulose
Calcium hydroxide

In deep fluorination with "Trifluor" in surface pores of the tooth in the reaction of liquid with suspension decomposition of complex salts happens with the formation of crystals of calcium fluoride (CaF_2), magnesium fluoride (MgF_2), hydroxylfluoride copper ($Cu(OH)F$), enclosed in the gel of silicic acid, which protects them from leaching. The presence of fluoride ions in the enamel increases the concentration of fluoroapatite hydroxylfluorapatite, which increase the resistance of the surface of the tooth to acids thus suppressed demineralization process. Besides a decrease in the pH level in a biological film: the fluorine ions react with the H^+ ions to form hydrogen fluoride (HF), suppressing the metabolism of bacteria. HF can easily penetrate through the cell membranes into the cells of bacteria and again decomposed into F^- ions and H^+ . Ions F^- inhibit bacterial enzymes in biological film, what reduces the rate of its grow. Copper has a bactericidal effect by inhibiting the formation of microbial biofilm on the enamel surface. The resulting crystals of magnesium fluoride and calcium fluoride sized about 50 Angstroms seal the spaces between the hydroxyapatite crystals in enamel prisms (100 Angstroms), which prevents the formation of caries.

"Trifluor", opposed to simple fluorides, has no toxic effect.

Recommended use

Remove dental plaque, clean surface to be treated in a conventional manner using common instruments, rinse with water, dry with an air jet and drench a cotton swab soaked in liquid "Trifluor". After 1-2 min remove excess of liquid with dry tampon and treat the surface with the suspension without preliminary rinsing (shake the bottle before use), then rinse with water after one minute.

It is advisable to repeat the procedure in 1-2 weeks to improve the result. After repeating the procedure twice next time the procedure can be repeated in 1-2 times per year.

Package contents and storage

Material is available in bottles of 10 ml liquid and 10 ml of suspension.

Store at t from $+5^{\circ}C$ to $+25^{\circ}C$.

Shelf life is 3 years.